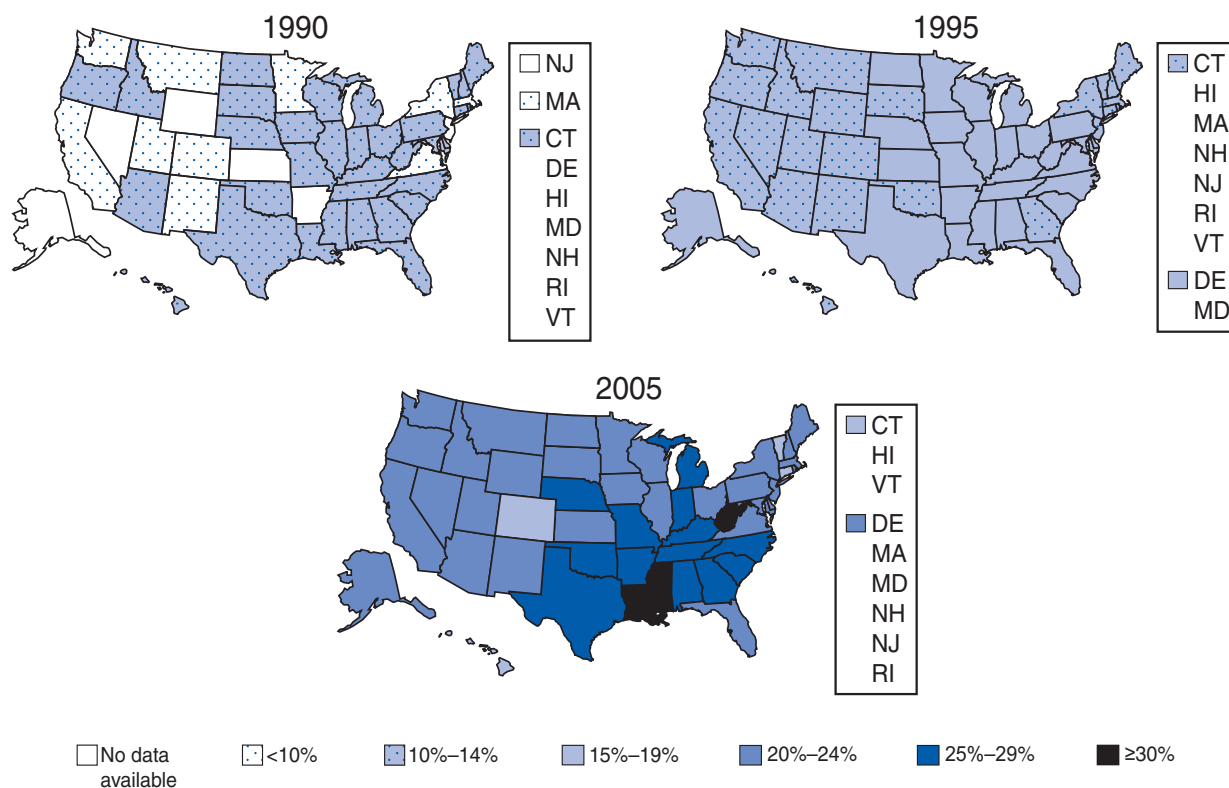


Physical Activity and Good Nutrition

Essential Elements to Prevent Chronic Diseases and Obesity

2007

Percentage of Adults Who Are Obese,* by State



“Changing the culture from one of treating sickness to staying healthy calls for small steps and good choices to be made each and every day.”

Michael O. Leavitt
Secretary, U.S. Department of Health and Human Services

Revised April 2007

The Importance of Physical Activity and Good Nutrition

Chronic diseases accounted for 5 of the leading 6 causes of death in 2002 in the United States. The prolonged illness and disability associated with many chronic diseases also decreases the quality of life for millions of Americans. Much of the chronic disease burden is preventable. Physical inactivity and unhealthy eating contribute to obesity and a number of chronic diseases, including some cancers, cardiovascular disease, and diabetes.

The Obesity Epidemic

In the past 30 years, the prevalence of overweight and obesity has increased sharply for both adults and children. Between 1976–1980 and 2003–2004, the prevalence of obesity among adults aged 20–74 years increased from 15.0% to 32.9%. Among young people, the prevalence of overweight increased from 5.0% to 13.9% for those aged 2–5 years, 6.5% to 18.8% for those aged 6–11 years, and 5.0% to 17.4% for those aged 12–19 years.

People who are obese are at increased risk for heart disease, high blood pressure, diabetes, arthritis-related disabilities, and some cancers. The estimated total cost of obesity in the United States in 2000 was about \$117 billion.

Promoting regular physical activity and healthy eating and creating an environment that supports these behaviors are essential to addressing the problem.

Lack of Physical Activity

Regular physical activity reduces people's risk for heart attack, colon cancer, diabetes, and high blood pressure and may reduce their risk for stroke. It also helps to control weight; contributes to healthy bones, muscles, and joints; reduces falls among older adults; helps to relieve the pain of arthritis; reduces symptoms of anxiety and depression; and is associated with fewer hospitalizations, physician visits, and medications. Physical activity can also help people avoid developing functional limitations, can improve physical function, and can provide therapeutic benefits for people with heart disease, high blood pressure, high cholesterol, osteoporosis, arthritis, lung disease, and other chronic diseases. Moreover, physical activity need not be strenuous to be beneficial. For example, adults of all ages benefit from moderate-intensity physical activity, such as 30 minutes of brisk walking most days of the week.

Despite the proven benefits of physical activity, more than 50% of U.S. adults do not get enough physical activity to provide health benefits; 24% are not active at all in their leisure time. Activity

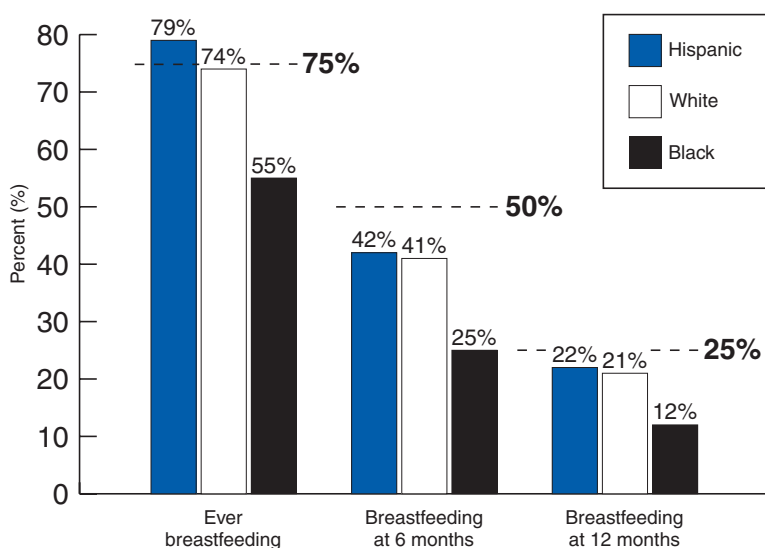
decreases with age, and sufficient activity is less common among women than men and among those with lower incomes and less education. Insufficient physical activity is not limited to adults. About two-thirds of young people in grades 9–12 are not engaged in recommended levels of physical activity. Daily participation in high school physical education classes dropped from 42% in 1991 to 33% in 2005.

The Critical Role of Good Nutrition

Research shows that good nutrition can help to lower people's risk for many chronic diseases, including heart disease, stroke, some cancers, diabetes, and osteoporosis. However, a large gap remains between healthy dietary patterns and what Americans actually eat. In 2005, only one-fourth of U.S. adults ate five or more servings of fruits and vegetables each day. To help people improve their eating habits, the U.S. Department of Health and Human Services and the U.S. Department of Agriculture publish *Dietary Guidelines for Americans* (available online at <http://www.healthierus.gov/dietaryguidelines>).

Good nutrition begins in infancy. Children who were not breastfed are at increased risk for overweight, asthma, and some childhood infections. Of concern for both children and adults, particularly in underdeveloped countries, is micro-nutrient malnutrition, which can negatively affect survival and growth for children, health and pregnancy outcomes for women, and resistance to illness for both.

Breastfeeding Rates Among U.S. Women, 2005



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Source: CDC, National Immunization Survey.

CDC's National Leadership

CDC is committed to ensuring that all people, especially those at greater risk for health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life. With new health protection goals that support healthy people in healthy places across all life stages, CDC is setting the agenda to enable people to enjoy a healthy life by delaying death and the onset of illness and disability by accelerating improvements in public health.

With fiscal year (FY) 2007 funding of \$38.5 million, CDC's Division of Nutrition and Physical Activity has worked to reduce chronic diseases and obesity through state programs, research, surveillance, training, intervention development and evaluation, leadership, policy and environmental change, communication and social marketing, and partnership development.

The Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases funds obesity prevention and control activities in 28 states. These efforts include making policy and environmental changes to encourage access to healthy foods and places to be active, and strengthening obesity prevention and control programs in preschools, child care centers, work sites, and many other community settings. All funded states will continue to evaluate their interventions to determine their effectiveness and to guide future efforts.

In 2005, CDC became the lead federal agency and national health authority for the National Fruit and Vegetable Program. Through this program, CDC encourages Americans to eat fruits and vegetables every day. CDC also provides technical assistance, materials, training, and partnership opportunities to states to help them develop comprehensive programs aimed at increasing fruit and vegetable consumption.

Providing Training and Technical Assistance

CDC supports the health departments of funded states by providing consultation, technical assistance, and training. For example, in early 2006, the second annual evaluation workshop, *Evaluation: The Roadmap to Success*, was held. Each year, participants at the workshops learn how to increase their state obesity prevention programs' capacity to plan, develop, and evaluate interventions.

In addition, CDC works with the Center of Excellence for Training and Research Translation at the University of North Carolina at Chapel Hill to build a Web-accessible database of obesity interventions, best practices, implementation tools, and curricula for state and community public health practitioners and to

provide states with training on ways to translate interventions into simple, feasible public health practices for use in their settings and populations.

CDC also continues to work with its longtime partner, the University of South Carolina, as co-sponsor of the Physical Activity and Public Health Courses. In addition, CDC has developed an international course with the International Union of Health Promotion and Education. These courses provide intensive training in physical activity for both public health practitioners and public health researchers.

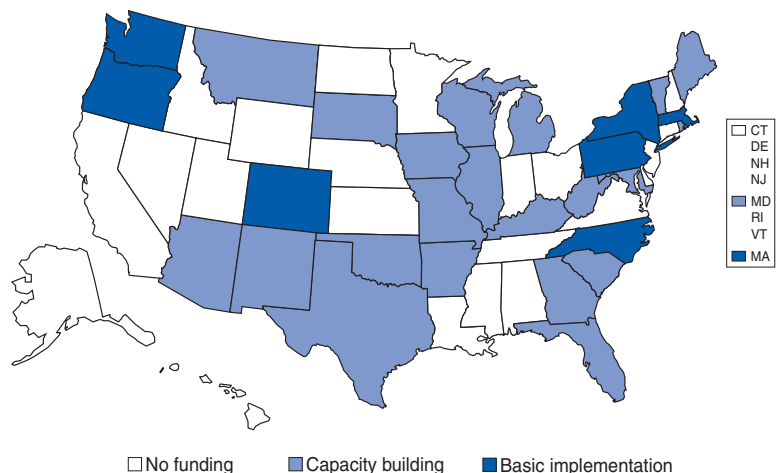
Improving Health Care Services

Medical settings offer ideal opportunities to promote good nutrition and physical activity. CDC has partnered with the National Initiative for Children's Healthcare Quality and the Robert Wood Johnson Foundation to share promising practices designed to reduce childhood obesity by improving clinical services. Efforts are under way to create a network to share policy and implementation strategies among all partners.

Promoting Work Site Health

In 2006, CDC's Healthier Worksite Initiative launched a Web site to serve as a "one-stop shop" for planners of work-force health promotion programs at federal and state agencies (<http://www.cdc.gov/hwi>). The site features time-saving planning information, policy examples, step-by-step tool kits, information about stairwell and garden market programs, and other resources to help wellness planners develop programs that foster healthy lifestyles among employees.

CDC Funding for Nutrition and Physical Activity Programs to Prevent Obesity and Other Chronic Diseases, FY 2007



Capitalizing on Unique Opportunities for Research and Collaboration

State Program in Action: Colorado

The Colorado Physical Activity and Nutrition Program (COPAN) funds eight rural communities to develop multi-sector obesity prevention work plans based on community assessments and formative research.

COPAN also has successfully partnered to support comprehensive community approaches at 11 sites in metro Denver through the **Kaiser Permanente Thriving Communities Initiative**.

In Commerce City, for example, these approaches include the following:

- **Eat Smart, Be Smart:** A nutrition, cooking, and literacy program for low-income preschool students and their parents.
- **Helping Hands Youth:** A community gardening program for youth.
- **Mobile Market:** A small-business pilot program to deliver fresh, affordable fruits and vegetables to various locations in the community.
- **Silver Sneaker:** An organized walking program for seniors based in a community recreation center.

Conducting Essential Research

CDC supports research to enhance the effectiveness of physical activity and nutrition programs. For example, studies focus on the effectiveness of breastfeeding interventions in various settings; the effectiveness of parent-focused strategies to reduce the time children spend watching television; the role of sugar-sweetened beverages in managing weight; and the use of policy interventions to promote physical activity.

CDC disseminates the results of these studies via publications and the Web. For example, *A Guide to Breastfeeding Interventions* helps states and others select breastfeeding promotion and support programs that have been found to be effective.

Translating Research into Practice

The Weight Management Research to Practice Series (R2P) is designed to help health professionals stay abreast of the emerging science in nutrition, physical activity, and obesity.

The R2P series provides an overview of the science on a specific topic for health professionals and lay audiences. This overview is compiled into a summary document that includes implications for health care practice.

Some installments are accompanied by a tool geared toward a lay audience, which can be used by health professionals in practice to explain concepts correctly and provide practical tips on implementing suggested strategies. Topics include weight management as it relates to fruit and vegetable intake, portion sizes, intake of sugar-sweetened beverages, energy density, and breastfeeding.

Monitoring Nutritional Status

Through its Pediatric Nutrition Surveillance System (PedNSS) and Pregnancy Nutrition Surveillance System (PNSS), CDC facilitates the collection, analysis, and interpretation of key indicators of child nutritional status and behavioral and nutritional risk factors for low-income pregnant women. An interactive CDC Web site trains people to use these systems.

Encouraging Global Collaboration

In 2006, CDC sponsored the first International Congress on Physical Activity and Public Health to promote the information-sharing and collaborations that are essential to community efforts to promote physical activity globally.

CDC's World Health Organization Collaborating Center for Physical Activity and Health Promotion provides global and regional leadership in building capacity for evidence-based public health practice and research related to physical activity and health. In addition, the Universal Flour Fortification Initiative creates global acceptance for fortifying flour with iron, folic acid, and other nutrients.

Future Directions

CDC and its partners will continue to create, evaluate, and modify programs, policies, and practices to prevent and control obesity. CDC will expand communication efforts to promote physical activity and good nutrition in work sites, schools, and health care settings. CDC also will continue to support U.S. Department of Health and Human Services' Steps to a HealthierUS Program as it works with communities across the country on innovative strategies to promote physical activity and good nutrition.

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